

Claims:

1. A torsion resistant scleral-tensioning stent for positioning in a tunnel formed intrasclerally in a globe of an eye, comprising
- a generally t-shaped body as seen in the intersection arms and having a cross
- 5 portion with a bottom surface and a leg portion extending substantially perpendicularly from a side surface of said cross portion,
- said leg portion having a bottom surface with an arcuate portion and a substantially planar portion at an end of said leg portion distal from said cross portion,
- 10 wherein said arcuate portion has a curvature greater than a radius of curvature of the globe in the area of the tunnel,
- whereby at least a portion of said arcuate bottom surface is adapted to increase the diameter of the scleral size adjacent said tunnel when said stent is positioned in said tunnel; and
- 15 wherein said bottom surface of said cross portion is dimensioned to be disposed external to said tunnel for resisting torsional forces on said leg portion.
2. The stent of Claim 1 wherein said cross portion extends beyond said tunnel.
3. The stent of Claim 2 wherein said arcuate stent has a base curve of from
- 20 about 8 to about 9 mm.
4. The stent of Claim 2 wherein said arcuate stent has a peak of about 7 mm.

5. The stent of Claim 1 wherein said stent is out-gassing free

6. The stent of Claim 5 comprising thermosetting PMMA.

7. The stent of Claim 1 wherein said stent slopes sharply from a maximum height at the leg-portion to a minimum thickness at the cross portion.

5 8. The stent of Claim 1 wherein said stent is arcuate biased.

9. The stent of Claim 8-further comprising a linear bore hole extending from the flange through the body of the stent.

10. The stent of Claim 8 further comprising a removable stylet positioned within said bore hole.

10 11. The stent of Claim 1 wherein the proximal flanged is flat on the bottom surface.

12. The stent of Claim 1 wherein the distal end of the stent is tapered

13. The stent of Claim 1 further comprising an anti-torsion-cap adapted and configured to conform to the distal end of said stent.

15 14. The stent of Claim 1 wherein the distal end of the stent comprises an insertion blade.

15. The stent of Claim 14 wherein the insertion blade is removable.

16. The stent of Claim 1 further comprising affixation means notches.

✓ 17. A torsion resistant scleral-tensioning multi-arcuate-stent comprising at

20 least about four torsion resistant scleral-tensioning stents positioned

(i) about equidistant about the sclera, and

(ii) in non-circulatory-compression arcs.

18. A method of chronically increasing ocular fluid drainage by the steps of placing at least two torsion resistant scleral-tensioning arcuate-stents comprising at least about four torsion resistant scleral-tensioning stents positioned

(i) about equidistant about the sclera, and

(ii) in non-circulatory-compression arcs.

19. A method of chronically reducing ocular fluid out-flow resistance by the steps of placing at least two torsion resistant scleral-tensioning arcuate-stents positioned

(i) about equidistant about the sclera, and

(ii) in non-circulatory-compression arcs.

20. A method of chronic glaucoma palliation by the steps of placing at least two torsion resistant scleral-tensioning arcuate-stents positioned

(i) about equidistant about the sclera, and

(ii) in non-circulatory-compression arcs.

21. A method of presbyopia palliation by the steps of placing at least two torsion resistant scleral-tensioning arcuate-stents comprising at least about four torsion resistant scleral-tensioning stents positioned

(i) about equidistant about the sclera, and

(ii) in non-circulatory-compression arcs.

22. A method of avoiding, delaying, or reversing the lens opacification by the method of placing at least two scleral-tensioning arcuate-stents positioned

(i) about equidistant about the sclera, and

— 28. A method of astigmatism reduction by the steps of placing at least one torsion resistant scleral-tensioning arcuate-stent in an intra-scleral position proximate to the lens and beyond the visual pathway to advance the outward surface of a lens in the quadrant nearest the stent.

5 surface of a lens in the quadrant nearest the stent.